

REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application in view of the foregoing amendments and the following remarks.

Claims 1-5, 7-13, 15-21, 23, 25-29, 31-38, and 40 are pending in the application, with claims 1, 18, and 40 being independent. Claims 14, 24, 30, 39 and 41-47 were previously canceled, and claims 6 and 22 are canceled herein without prejudice to or disclaimer of the subject matter recited therein. Claims 1, 7-12, 18-21, 23, and 40 are amended herein. Support for the claim amendments and additions can be found in the original disclosure. No new matter has been added.

STATEMENT OF SUBSTANCE OF INTERVIEW

Initially, Applicant wishes to thank the Examiner for conducting an interview with Applicant's representatives, Damon Kruger along with Elizabeth Zehr, on Thursday February 5, 2009.

During the interview, Applicant's representatives and the Examiner discussed the §103(a) rejection as applied to independent claims 1 and 18. Specifically, the Examiner indicated that the proposed amendments to claims 1 and 18 likely overcome at least the cited references; however, a more thorough search of the cited references as well as an expanded search would be required. Applicant thanks the Examiner for this indication. The subject matter of the interview, and other remarks, are included below to assist the Examiner in more fully understanding the Applicant's position on the rejections under §103(a).

In addition, the Examiner indicated that independent claim 40 does not comply with the statutory subject matter requirements of Section 101. The Examiner indicated that amending claim 40 to include tangible hardware would remove any Section 101 issues. Applicant thanks the Examiner for this indication and has presented claim 40 accordingly.

§ 103 REJECTIONS

Claims 1-3, 5-12, 15, 18, 21-23, 25, 27-29, 31-38, and 40 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,157,927 ("Schaefer") in view of U.S. Patent No. 5,835,764 ("Platt"). Claims 4, 16, 17, 20, and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Schaefer in view of Platt and further in view of U.S. Patent No. 6,728,958 ("Klein"). Claims 13 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Schaefer in view of Platt and further in view of U.S. Patent No. 6,101,527 ("Lejeune"). Applicant respectfully traverses the rejection, and requests that the rejection be reconsidered and withdrawn.

Independent claim 1, as presently presented, recites:

Interfaces, stored on one or more computer-readable media,
to be called on kernel transaction management objects, comprising:

application program interfaces (APIs) local with the
transaction manager located in a kernel to implement operations in the
kernel on a kernel transaction object (TX), the TX representing a
transaction and being accessible by at least one process participating in
the transaction, the APIs to implement operations in the kernel on the
TX including:

a CreateTransaction API to create a new TX and
return a handle to the new TX, wherein if a handle of the new

TX closes without requesting that the TX be committed, then the transaction implicitly rolls back;

APIs local with the transaction manager to implement kernel-level operations on a kernel resource management object (RMO), the RMO representing a relationship between a TX associated with the transaction manager and at least one resource that participates in the transaction, the resource capable of storing data in a durable state; and

APIs local with the transaction manager to implement kernel-level operations on a kernel enlistment (EN) object, the EN representing a relationship between a resource manager and the transaction.

Schaefer is directed to “[a]n interconnect for enabling a component in a transaction processing environment to request, as part of a global transaction under the control of a transaction manager that is not XATMI-compliant, a resource on a remote server outside of that environment that is under the control of an XATMI-compliant transaction manager.” (Abstract). The interconnect of Schaefer includes a connection manager and a resource manager. (Summary). Specifically, the connection manager described by Schaefer “comprises a protocol machine that communicates with a requested resource on the remote server in accordance with a bi-directional, two-phase commitment communications protocol”; and the resource manager “has a first interface that receives XATMI service requests from the component and a second interface that receives directives (e.g., prepare, commit, abort, etc.) issued by the first transaction manager for a given global transaction.” (Summary).

Platt is directed to a transaction processing system “for executing transactional processes representing transactions” (Abstract). Specifically, “the transaction processing functionality is integrated within a reduced kernel operating system such as a microkernel or nanokernel operating system.” (Abstract). Platt is cited for allegedly teaching: “a

transaction manager located in a kernel and operable to implement operations in the kernel (“...Transaction Manger...is integrated as part the base operating system...” Col. 4 Ln. 6-15, Col. 7 Ln. 27-40, “...transactional kernel...” Col. 8 Ln. 10-19, “...TuK...” Col. 11 Ln. 31-35).” (Office Action, Page 3).

Applicant respectfully submits that Schaefer in view of Platt fails to teach or suggest the recitations of amended claim 1. Specifically, Schaefer in view of the cited art fails to teach or suggest “a CreateTransaction API to create a new TX and return a handle to the new TX, wherein if a handle of the new TX closes without requesting that the TX be committed, then the transaction implicitly rolls back” as recited in claim 1.

The above cited portion of claim 1 has been amended to include, in part, the limitations of previous dependent claim 6. The Office acknowledges that, with reference to formerly presented dependent claim 6: “Schaefer teaches interfaces according to claim 2, wherein at least one of the APIs calls for a new TX to be created for a transaction (“...creates...” Col. 15 Ln. 15-20).” (Office Action, Page 4).

Applicant provides the relevant section of Schaefer that was cited by the Office: “When an instantiated MTS component is configured as requiring or supporting a transaction, MTS also creates a Transaction object 78 (FIG. 4D) that represents the transaction for which that MTS component is attempting to perform work.” (Column 15, Lines 15-20). Although Schaefer provides for creating a transaction object, Schaefer fails to teach or suggest “wherein if a handle of the new TX closes without requesting that the TX be committed, then the transaction implicitly rolls back” since the creating a transaction object element of Schaefer does not provide for determining whether a

handle of the new TX closes without requesting that the TX be committed. Additionally, a thorough search of Schaefer fails to uncover any mention of closing a handle of the new TX without requesting that the TX be committed as applied to the recitations of Applicant's claim 1. Accordingly, Schaefer in view of Platt fails to teach or suggest the recitations of claim 1.

In addition, Applicant respectfully notes that "the examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness." MPEP § 2142. In this response to this Office Action, Applicant does not submit that the examiner has met the burden to combine the Schaefer and Platt references; rather, the Applicant reserves the right to challenge the motivation to combine the Schaefer and Platt references.

The amendments to claim 1 are supported by the specification on at least page 16, paragraph [0047]. No new matter is added. Accordingly, independent claim 1 is believed allowable.

Dependent claims 2-13, 15-17, 25-29, and 31-38 depend from independent claim 1 and are believed allowable by virtue of this dependency, as well as for additional features that they recite. Applicant also respectfully requests individual consideration of each dependent claim.

Independent claim 18, as presently presented, recites:

Interfaces, stored on one or more computer-readable media,
to be called on kernel transaction management objects, comprising:
application program interfaces (APIs) local with a transaction
manager to implement kernel-level operations on a kernel resource
management object (RMO), the APIs to implement operations on the
RMO including: *a CreateEnlistment API to call for the RMO to join a*

transaction, wherein subsequent calls to the CreateEnlistment API replaces a notification mask and replaces a transaction key without creating a new enlistment on the transaction.

(Emphasis added). Applicant respectfully submits that Schaefer and Platt whether taken alone or in combination, fail to teach or suggest the recitations of claim 18. Specifically, Schaefer in view of Platt fails to teach or suggest “wherein subsequent calls to the CreateEnlistment API replaces a notification mask and replaces a transaction key without creating a new enlistment on the transaction” as recited in claim 18.

The above cited portion of claim 18 has been amended to include, in part, the limitations of previous dependent claim 22. The Office acknowledges that, with reference to formerly presented dependent claim 22: “Schaefer teaches interfaces according to claim 2, wherein at least one of the API calls for the RMO to be enlisted on a transaction at least once (“...Enlist method..” Col. 15 Ln. 51-62, Col. 16 Ln. 8-17.)” (Office Action, Page 6). Applicant provides the relevant portion of Schaefer that was cited by the Office: “The Enlist method is invoked by the resource manager 70 to enlist a particular branch of a global transaction with the MS DTC 56.” (Column 15, Lines 55-58). Although Schaefer provides for a resource manager that enlists transactions with the MS DTC, Schaefer is silent as to replacing a notification mask and transaction key as applied to the recitations of Applicant's claim 18. Accordingly, Schaefer fails to teach or suggest the recitations of claim 18.

Platt was not cited for enlisting a transaction and thus Platt fails to remedy the deficiencies in Schaefer noted above with respect to claim 18. Accordingly, claim 18 is allowable for at least the foregoing reasons.

The amendments to claim 18 are supported by the specification on at least page 31, paragraph [0060]. No new matter is added. Accordingly, independent claim 18 is believed allowable.

Dependent claims 19-21, and 23 depend from independent claim 18 and are believed allowable by virtue of this dependency, as well as for additional features that they recite. Applicant also respectfully requests individual consideration of each dependent claim.

Independent claim 40, as presently presented, recites:

An apparatus for implementing a transaction, comprising:
a kernel transaction object (TX) to represent a transaction, the TX accessible by at least one process participating in the transaction;
a kernel resource manager object (RMO) to represent a relationship between a TX associated with the transaction manager and at least one resource that participates in the transaction, the resource capable of storing data in a durable state; and
a kernel enlistment object (EN) to represent a relationship between a resource manager and the transaction,
wherein two-phase commit processing is executed at the kernel-level by calling application program interfaces (APIs) on the TX, the RMO, and the EN, the APIs local with the transaction manager, the transaction manager located in a kernel of an operating system, *the APIs called on the TX including an API to create a new TX and return a handle to the new TX, wherein if a handle of the new TX closes without requesting that the TX be committed, then the transaction implicitly rolls back.*

(Emphasis added). Applicant respectfully submits that Schaefer in view of Platt fails to teach or suggest the recitations of amended claim 40. Specifically, Schaefer in view of the cited art fails to teach or suggest “wherein if a handle of the new TX closes without requesting that the TX be committed, then the transaction implicitly rolls back” as recited

in claim 40. Specifically, a thorough search of Schaefer fails to uncover any mention closing a handle of the new TX without requesting that the TX be committed as applied to the recitations of Applicant's claim 1.

Additionally, Platt was not cited for APIs called on the TX and thus Platt fails to remedy the deficiencies noted with respect to Schaefer. Accordingly, independent claim 40 is believed allowable.

CONCLUSION

For at least the foregoing reasons, it is respectfully submitted that claims 1-5, 7-13, 15-21, 23, 25-29, 31-38, and 40 are in condition for allowance. Applicant respectfully requests reconsideration and withdrawal of the rejections and an early notice of allowance.

The arguments and amendments presented herein were necessitated by the most recent Office Action, and could not have been presented previously because Applicant earnestly believed that the claims were in condition for allowance at the time of filing the previous response.

If any issue remains unresolved that would prevent allowance of this case, Applicant requests that the Examiner contact the undersigned attorney to resolve the issue.

Respectfully Submitted,

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